

IN THE CLAIMS:

The claims have been amended as follows:

1. Canceled.
2. (Currently Amended) The apparatus Unit according to ~~claim 4~~ claim 42, wherein the detecting means, at least in the conduit portion, are of the direct detection type to detect ~~that use an appropriate substance or fluid to cause~~ an alteration in the biofilm caused by the fluid.
3. (Currently Amended) The apparatus Unit according to ~~claim 4~~ claim 42, wherein the detecting means, at least in the conduit portion, are of the direct detection type to detect ~~that use an appropriate substance or fluid to color~~ the biofilm colored by the fluid.
4. (Currently Amended) The apparatus Unit according to ~~claim 4~~ claim 42, wherein the detecting means, at least in the conduit portion, are of the direct detection type to detect ~~that use an appropriate substance or fluid to cause~~ an alteration in the electrical parameters of the biofilm caused by the fluid.
5. (Currently Amended) The apparatus Unit according to ~~claim 4~~ claim 42, wherein the detecting means, at least in the conduit portion, are of the indirect detection type and comprise at least one sample element positioned inside the conduit portion and removable from the conduit portion itself; said sample element being contacted by the flow of fluid in the dental unit in such a way as to create the same operating conditions as those in the conduit portion, thus allowing the biofilm to adhere also to the sample element ; ~~there being a reagent or coloring fluid acting on the sample element~~.

6. (Currently Amended) The ~~apparatus~~ Unit according to claim 2, wherein the detecting means comprise at least the conduit portion, which is transparent to allow a direct visual check, and feed means for introducing a the reagent or coloring fluid connected to, and acting on, the transparent conduit portion.

7. (Currently Amended) The ~~apparatus~~ Unit according to claim 6, wherein the feed means comprise a tank containing the reagent or coloring fluid and means for pumping the fluid into the conduit portion through a first connecting channel leading into a first end of the transparent conduit portion.

A¹ 8. (Currently Amended) The ~~apparatus~~ Unit according to claim 7, wherein the other end of the conduit portion is connected to a second channel for draining out the mixture consisting of the reagent or coloring fluid and the fluid already present in the conduit portion.

9. (Currently Amended) The ~~apparatus~~ Unit according to claim 6, wherein the feed means comprise a tank containing the reagent or coloring fluid and means for pumping the fluid into the conduit portion through a first connecting channel leading into a first end of the transparent conduit portion; the other end of the conduit portion being connected to a second channel connected directly to the tank and used to recirculate the mixture consisting of the reagent or coloring fluid and the fluid present in the conduit portion.

10. (Currently Amended) The apparatus Unit according to ~~claim 4~~ claim 6, wherein the detecting means comprise optical means located and operating at the transparent conduit portion and designed to emit a light beam before and after the reagent or coloring fluid is introduced so as to reveal a change in the color and/or transparency of the biofilm at least inside the conduit portion.

11. (Currently Amended) The apparatus Unit according to claim 10, wherein the optical means emit a light beam whose wavelength is proportional to the coloring of the biofilm.

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12. (Currently Amended) The apparatus Unit according to claim 10, wherein the optical means comprise an emitter of the light beam positioned outside the conduit portion, and a control sensor positioned on the opposite side of the conduit portion and designed to receive the light beam and to check an absorption or transmission coefficient of the light passing through the conduit portion against a preset reference value defined before introducing the reagent or coloring fluid into the conduit portion; alerting means being connected to the sensor and being activated by the sensor through a signal generated by the sensor when the value of the reading differs from the preset reference value.

13. (Currently Amended) The apparatus Unit according to ~~claim 4~~ claim 42, wherein the detecting means comprise means for detecting electrical parameters and in that the reagent ~~substance~~ fluid is an electrolyte.

14. (Currently Amended) The apparatus Unit according to claim 13, wherein the means for detecting electrical parameters comprise a conductivity sensor positioned inside at least one conduit portion and designed to detect the electrical resistance of the biofilm.

15. (Currently Amended) The ~~apparatus~~ Unit according to claim 13, wherein the means for detecting electrical parameters comprise a conductivity sensor positioned inside at least one conduit portion and designed to detect the conductivity of the biofilm.

16. (Currently Amended) The ~~apparatus~~ Unit according to claim 14, wherein the sensor is connected to a corresponding control unit for reading, comparing and checking the electrical parameter detected; the control unit being in turn connected to alerting means activated by the control unit itself through a signal generated by the control unit when the value of the reading differs from the preset reference value.

A¹ 17. (Currently Amended) The ~~apparatus~~ Unit according to claim 12, wherein the alerting means consist of an audible warning device.

18. (Currently Amended) The ~~apparatus~~ Unit according to claim 12, wherein the alerting means consist of a warning light device.

19. (Currently Amended) The ~~apparatus~~ Unit according to claim 12, wherein the alerting means consist of an alphanumeric display unit to display the value of the reading.

20. (Currently Amended) The ~~apparatus~~ Unit according to claim 12, wherein the alerting means consist of an alphanumeric display unit to display a reference message corresponding to the result of the reading.

21. (Currently Amended) The ~~apparatus~~ Unit according to claim 6, wherein the transparent conduit portion is equipped with shutoff valve means located at the ends of it, designed to isolate the portion from the rest of the water line before the reagent or coloring fluid is introduced.

22. (Currently Amended) The ~~apparatus~~ Unit according to ~~claim 4~~ claim 42, wherein the conduit portion forms an extension of one of the conduits that supply the handpieces and is equipped with an independent drain.

A' 23. (Currently Amended) The ~~apparatus~~ Unit according to ~~claim 4~~ claim 42, wherein the conduit portion is a part of a conduit that supplies one of the handpieces.

24. (Currently Amended) The ~~apparatus~~ Unit according to claim 5, wherein the detecting means comprise a plurality of the sample elements consisting of a plurality of balls made of the same type of material as that of which the conduits of the water line are made.

25. (Currently Amended) The ~~apparatus~~ Unit according to claim 5, wherein the sample elements are housed in a container fitted inside the conduit portion in such a way as to permit the operating fluid to flow normally through the dental unit.

26. (Currently Amended) The ~~apparatus~~ Unit according to claim 25, wherein the container is an integral part of the conduit portion.

27. (Currently Amended) The ~~apparatus~~ Unit according to claim 25, wherein the container is of the disposable type.

A 28. (Currently Amended) The ~~apparatus~~ Unit according to ~~claim 25~~ claim 24, wherein the container has a sealed access zone allowing it to be detachably coupled to a sampling cell from which the balls can be taken out one at a time and which is filled with a biofilm reagent or coloring fluid that causes the surface of the ball to change color perceptibly.

29. (Currently Amended) The ~~apparatus~~ Unit according to claim 28, wherein the sampling cell is of the disposable type.

30. Canceled.

31. Canceled.

32. Canceled.

33. Canceled.

34. Canceled.

35. Canceled.

36. Canceled.

37. Canceled.

38. Canceled.

39. Canceled.

40. Canceled.

41. Canceled.

42. (New) A dental unit comprising:

a water line equipped with a plurality of conduits that supply fluids to handpieces and fluid consuming units that use fluid from a main supply or accessory fluids from corresponding independent lines; and

an apparatus for detecting biofilm in the water conduits, especially biofilm adhering to the inside surfaces of the conduits;

the apparatus presenting a fluid reagent and means for detecting the reaction between the biofilm and the fluid reagent, at least on the surfaces of a conduit portion of one of the conduits.

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43. (New) A dental unit comprising:

a plurality of fluid conduits that supply water to handpieces and fluid consuming units;

an apparatus for detecting presence of biofilm adhering to inside surfaces of the fluid conduits, the apparatus comprising: (i) a fluid reagent; (ii) means for introducing the fluid reagent into the fluid conduits so that said fluid reagent reacts with biofilm adhering to the inside surface of the fluid conduits; and, (iii) means for detecting a change in a property of the biofilm adhering to the inside surfaces of the fluid conduits caused by a reaction between said biofilm adhering to the inside surfaces and the fluid reagent.
